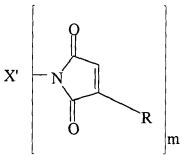
wherein said maleimide has the structure:



(III)

wherein:

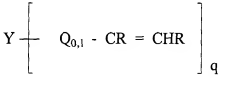
m = 1, 2 or 3,

each R is independently hydrogen or lower alkyl, and

X' is:

i) a saturated branched chain alkyl, alkylene or alkylene oxide, optionally containing saturated cyclic moieties as substituents on said alkyl, alkylene or alkylene oxide chain or as part of the backbone of the alkyl, alkylene or alkylene oxide chain, wherein said species have in the range of about 12 to about 500 carbon atoms, or a mixture of any two or more thereof,

wherein said vinyl compound has the structure:



(II)

wherein:

q is 1, 2 or 3,

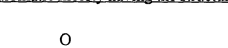
each R is independently as defined above,

each Q is independently -O-, -O-C(O)-, -C(O)- or -C(O)-O-, and

Y is:

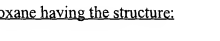
a saturated straight chain alkyl, alkylene or alkylene oxide, or branched chain alkyl, alkylene or alkylene oxide, optionally containing saturated cyclic moieties as substituents on said alkyl, alkylene or alkylene oxide chain or as part of the backbone of the alkyl, alkylene or alkylene oxide chain, wherein said species have at least 6 carbon atoms,

an aromatic moiety having the structure:



wherein each R is independently as defined above, Ar is a monosubstituted, disubstituted or trisubstituted aromatic or heteroaromatic ring having in the range of 3 to 10 carbon atoms, t falls in the range of 2 to 10, and u is 1, 2 or 3,

a siloxane having the structure:



wherein each R is independently defined as above, each R' is independently hydrogen, lower alkyl or aryl, and wherein m' falls in the range of 1 to 10, n' falls in the range of 1 to 10, and q is as defined above, or

a polyalkylene oxide having the structure:

wherein each R is independently as defined above, and wherein r falls in the range of 1 to 10, s falls in the range of 1 to 10, and q' falls in the range of 1 to 50,

as well as mixtures of any two or more thereof.

40. (Amended) A method for adhesively attaching a first article to a second article, said method comprising:

([**a**]1) applying a composition **[according to claim 28]** to said first article,

([**b**]2) bringing said first and second article into intimate contact to form an assembly wherein said first article and said second article are separated only by the adhesive composition applied in step ([**a**] 1), and thereafter,

([**c**]3) subjecting said assembly to conditions suitable to cure said adhesive composition[.],

wherein said composition comprises:

in the range of about 10 to 80 weight percent of a thermosetting resin composition, and

in the range of about 20 to 90 weight percent of a conductive filler,

wherein said thermosetting resin composition comprises:

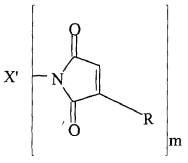
a) a liquid maleimide,

b) in the range of about 0.01 to about 10 equivalents of a vinyl compound per equivalent of maleimide,

c) in the range of 0.2 to 3 weight percent of at least one free radical initiator, based on the total weight of the composition, and

d) in the range of 0.1 to 10 weight percent of at least one coupling agent, based on the total weight of the composition, wherein said coupling agent has both a co-polymerizable function and a silicate ester function.

wherein said maleimide has the structure:



(III)

wherein:

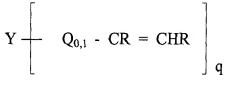
m = 1, 2 or 3,

each R is independently hydrogen or lower alkyl, and

X' is:

i) a saturated branched chain alkyl, alkylene or alkylene oxide, optionally containing saturated cyclic moieties as substituents on said alkyl, alkylene or alkylene oxide chain or as part of the backbone of the alkyl, alkylene or alkylene oxide chain, wherein said species have in the range of about 12 to about 500 carbon atoms, or a mixture of any two or more thereof,

wherein said vinyl compound has the structure:



(II)

wherein:

q is 1, 2 or 3,

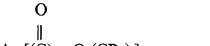
each R is independently as defined above,

each Q is independently -O-, -O-C(O)-, -C(O)- or -C(O)-O-, and

Y is:

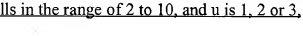
a saturated straight chain alkyl, alkylene or alkylene oxide, or branched chain alkyl, alkylene or alkylene oxide, optionally containing saturated cyclic moieties as substituents on said alkyl, alkylene or alkylene oxide chain or as part of the backbone of the alkyl, alkylene or alkylene oxide chain, wherein said species have at least 6 carbon atoms,

an aromatic moiety having the structure:



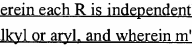
wherein each R is independently as defined above, Ar is a monosubstituted, disubstituted or trisubstituted aromatic or heteroaromatic ring having in the range of 3 to 10 carbon atoms, t falls in the range of 2 to 10, and u is 1, 2 or 3,

a siloxane having the structure:



wherein each R is independently defined as above, each R' is independently hydrogen, lower alkyl or aryl, and wherein m' falls in the range of 1 to 10, n' falls in the range of 1 to 10, and q is as defined above, or

a polyalkylene oxide having the structure:



A3

wherein each R is independently as defined above, and wherein r falls in the range of 1 to 10, s falls in the range of 1 to 10, and q' falls in the range of 1 to 50, as well as mixtures of any two or more thereof.

43. (Amended) A method for adhesively attaching a microelectronic device to a substrate, said method comprising:

([a] 1) applying a die attach paste **[according to claim 28]** to said substrate and/or said microelectronic device,

([b] 2) bringing said substrate and said device into intimate contact to form an assembly wherein said substrate and said device are separated only by the die attach composition applied in step ([a] 1), and thereafter,

([c] 3) subjecting said assembly to conditions suitable to cure said die attach composition[.],

wherein said die-attach paste comprises:

in the range of about 10 to 80 weight percent of a thermosetting resin composition, and

in the range of about 20 to 90 weight percent of a conductive filler,

wherein said thermosetting resin composition comprises:

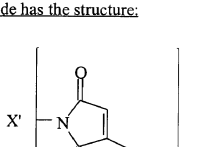
a) a liquid maleimide,

b) in the range of about 0.01 to about 10 equivalents of a vinyl compound per equivalent of maleimide,

c) in the range of 0.2 to 3 weight percent of at least one free radical initiator, based on the total weight of the composition, and

d) in the range of 0.1 to 10 weight percent of at least one coupling agent, based on the total weight of the composition, wherein said coupling agent has both a co-polymerizable function and a silicate ester function.

wherein said maleimide has the structure:



(III)

wherein:

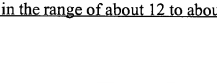
m = 1, 2 or 3,

each R is independently hydrogen or lower alkyl, and

X' is:

i) a saturated branched chain alkyl, alkylene or alkylene oxide, optionally containing saturated cyclic moieties as substituents on said alkyl, alkylene or alkylene oxide chain or as part of the backbone of the alkyl, alkylene or alkylene oxide chain, wherein said species have in the range of about 12 to about 500 carbon atoms, or a mixture of any two or more thereof,

wherein said vinyl compound has the structure:



(II)

wherein:

q is 1, 2 or 3,

each R is independently as defined above,

each Q is independently -O-, -O-C(O)-, -C(O)- or -C(O)-O-, and

Y is:

a saturated straight chain alkyl, alkylene or alkylene oxide, or branched chain alkyl, alkylene or alkylene oxide, optionally containing saturated cyclic moieties as substituents on said alkyl, alkylene or alkylene oxide chain or as part of the backbone of the alkyl, alkylene or alkylene oxide chain, wherein said species have at least 6 carbon atoms,

an aromatic moiety having the structure:

$$Ar\text{-}[(\overset{O}{\overset{\|}{C}})_{0,1}\text{-}O\text{-}(CR_2)_t]_u\text{-}$$

wherein each R is independently as defined above, Ar is a monosubstituted, disubstituted or trisubstituted aromatic or heteroaromatic ring having in the range of 3 to 10 carbon atoms, t falls in the range of 2 to 10, and u is 1, 2 or 3,

a siloxane having the structure:

$$-(CR_2)_{m'}\text{-}[Si(R')_2\text{-}O]_q\text{-}Si(R')_2\text{-}(CR_2)_{n'}\text{-}$$

wherein each R is independently defined as above, each R' is independently hydrogen, lower alkyl or aryl, and wherein m' falls in the range of 1 to 10, n' falls in the range of 1 to 10, and q is as defined above, or

a polyalkylene oxide having the structure:

$$-[(CR_2)_r\text{-}O\text{-}]_{q'}\text{-}(CR_2)_s\text{-}$$